



Westinghouse
Hanford Company

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OSM RCRA LEVEL C DATA ASSESSMENT

DATE 10-5-90
REVIEWED BY C.J. Simiele
LABORATORY 222-S
CASE # SST-241-U-110
SDG # Segment#2 (Core6)
89-043

SAMPLES/MATRIX Seq Sample # - 89-043
LAB ID#:
Fusion: F0058
water leach: F0063
acid digest: F0068
untreated F0053

DATA ASSESSMENT SUMMARY

QUALITY CONTROL CHECK	ANALYSIS	IC	TOC	ICP
1. <u>Holding Time</u>		X	X	O
2. <u>Calibration</u>		O	O	M
3. <u>Analytical Blank</u>		O	O	X
4. <u>LCS</u>		N/A	N/A	N/A
5. <u>I_{CS} (ICP only)</u>		N/A	N/A	N/A
6. <u>Matrix Spike</u>		O	O	M
7. <u>Duplicate Analyses</u>		X	O	X
8.		—	—	—
9.		—	—	—
10.		—	—	—

O = data had no problems

X = data qualified due to minor problems

M = data qualified due to major problems/some data may be unusable

OVERALL ASSESSMENT: _____

NOTES: _____

- o Refer to the corresponding attachments for explanation of any problems.



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OSM RCRA LEVEL C DATA ASSESSMENT

DATE 10-5-90 SAMPLES/MATRIX Sng(2) 89-043
LAB ID:
REVIEWED BY L.Sumiele FUSION: F0058
LABORATORY 222-S WATER LEACH: F0063
CASE # SST-241-U-110 ACID DIGEST: F0068
SDG # Segment # 2-Core W UNTREATED: F0053
89-043

DATA ASSESSMENT SUMMARY

QUALITY CONTROL CHECK	ANALYSIS	pH (DUPLICATE ANALYSES)	0% Water Analyses Only
1. <u> </u>			
2. <u>Duplicate Analyses</u>	<u>O</u>	<u>O</u>	
3. <u> </u>			
4. <u> </u>			
5. <u> </u>			
6. <u> </u>			
7. <u> </u>			
8. <u> </u>			
9. <u> </u>			
10. <u> </u>			

O = data had no problems

X = data qualified due to minor problems

M = data qualified due to major problems/some data may be unusable

OVERALL ASSESSMENT: _____

NOTES: _____

- o Refer to the corresponding attachments for explanation of any problems.

SUMMARY DATA REPORT

Tank 241-U-110
 Core 6
 Segment 2
 Customer Id. 89-043

Untreated	Sample	Duplicate		Sample		Duplicate	
		Sample	Duplicate	Acid Digestion Results	Sample	Duplicate	
pH	11.56	11.76		Aluminum	94285 ug/g	88959 ug/g	
Percent Water	39.50 %	37.60 %		Antimony	579 ug/g J	LT ug/g	
Total Alpha	2.81 uci/g	2.46 uci/g		Barium	74 ug/g J	38 ug/g	
Total Beta	1650 uci/g	1600 uci/g		Beryllium	3 ug/g J	LT ug/g	
GEA Cs-137	30.1 uci/g	37.0 uci/g		Bismuth	5381 ug/g J	4709 ug/g	
Uranium	14100 ug/g	15000 ug/g		Boron	62 ug/g J	LT ug/g	
Fusion Analysis				Cadmium	LT ug/g	LT ug/g	
				Calcium	1098 ug/g J	905 ug/g	
				Chromium	448 ug/g J	511 ug/g	
				Cobalt	79 ug/g J	LT ug/g	
				Copper	97 ug/g J	LT ug/g	
				Europium	8 ug/g J	LT ug/g	
				Iron	18001 ug/g	18129 ug/g	
				Lanthanum	68 ug/g J	LT ug/g	
				Lead	1344 ug/g J	3045 ug/g	
				Lithium	13 ug/g J	LT ug/g	
				Magnesium	8338 ug/g J	1444 ug/g	
				Manganese	6755 ug/g	6547 ug/g	
				Mercury	40 ug/g	43 ug/g	
				Holmium	40 ug/g J	LT ug/g	
				Nickel	192 ug/g J	131 ug/g	
				Potassium	LT ug/g J	LT ug/g	
				Samarium	496 ug/g J	LT ug/g	
				Selenium	761 ug/g J	316 ug/g	
				Silver	LT ug/g J	LT ug/g	
				Sodium	79677 ug/g	75641 ug/g	
				Strontium	777 ug/g	756 ug/g	
				Sulfur	511 ug/g J	377 ug/g	
				Tantalum	96 ug/g J	LT ug/g	
				Thallium	1733 ug/g J	LT ug/g	
				Thorium	476 ug/g J	LT ug/g	
				Tin	112 ug/g J	53 ug/g	
				Titanium	157 ug/g J	113 ug/g	
				Uranium	18706 ug/g J	8238 ug/g	
				Vanadium	92 ug/g J	LT ug/g	
				Zinc	735 ug/g J	274 ug/g	
				Zirconium	96 ug/g J	LT ug/g	
Total Organic Carbon	2760 ug/g	2490 ug/g					

LT: Less than instrument detection limit.

10-9-90
 C.V. Semzell

RCRA LEVEL C QC

Name C.J. Simiele Date 10-5-90

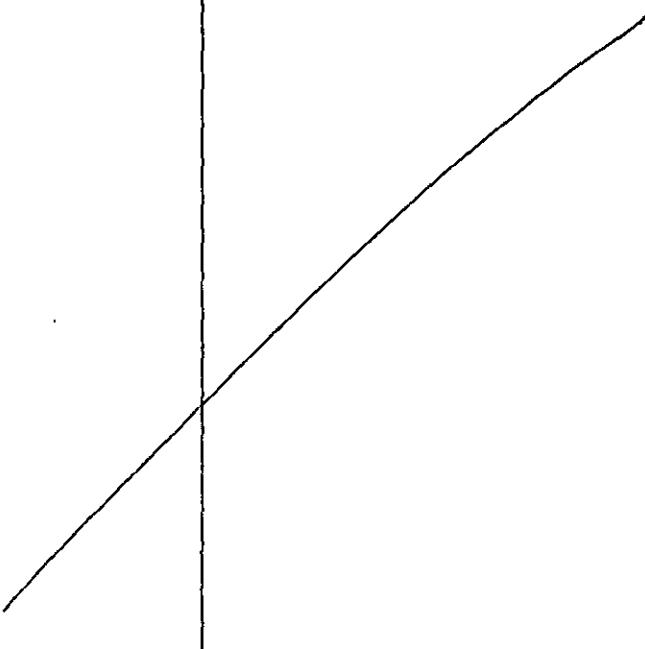
QC Check: Holding Time

Comments: Holding times were not met for pH, IC and TOC analyses. All other holding times were met.

None

Action: Due to the unusual circumstance under which SST 241-U-110 samples were analyzed, any analyses which did not meet holding times will not be qualified.

<u>sample #</u>	<u>constituent</u>	<u>value/qual</u>	<u>sample #</u>	<u>constituent</u>	<u>value/qual</u>
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RCRA LEVEL C QC

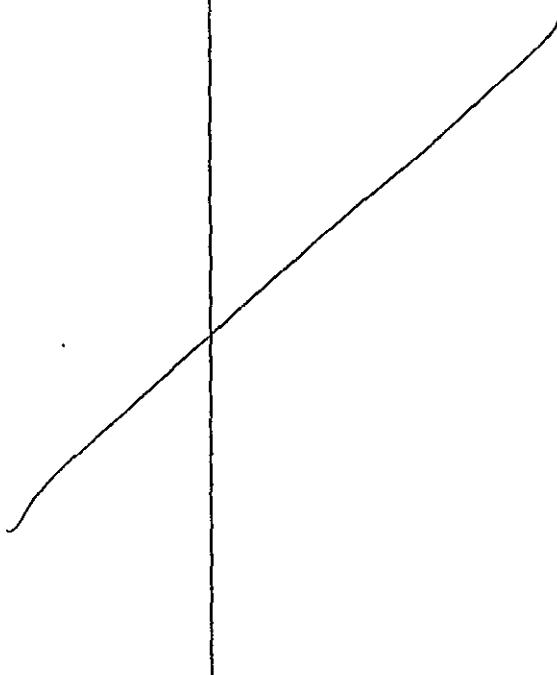
Name C.J. Simiele Date 10-5-90

QC check: Calibration

COMMENTS: All initial and continuing calibration
within control limits.

ACTION: None

sample # constituent value/qual | sample # constituent value/qual



— of —

RCRA LEVEL C QC

Name C.J. Simielec

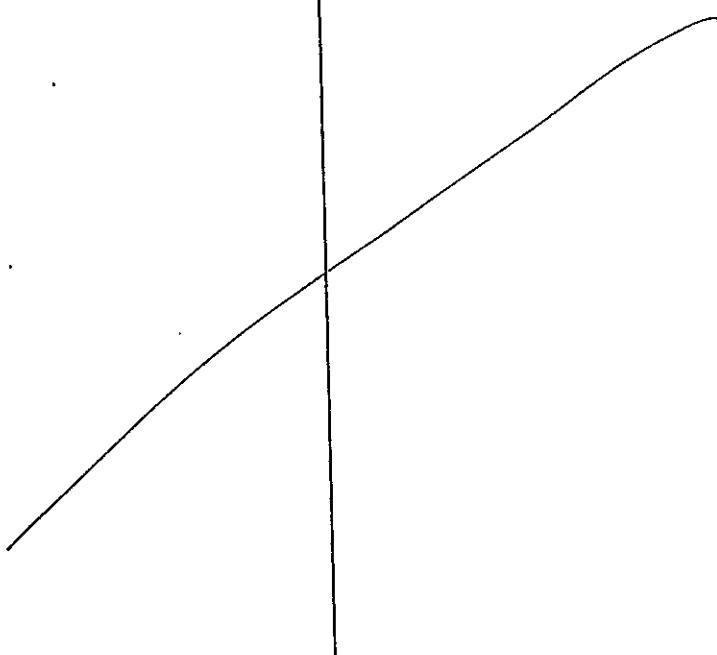
Date 10-8-90

QC check: Analytical Blank

Comments: All IC anion dup preparation
blanks contaminant free.

Action: None

<u>sample #</u>	<u>constituent</u>	<u>value/qual</u>	<u>sample #</u>	<u>constituent</u>	<u>value/qual</u>



— of —

RCRA LEVEL C QC

Name C.J. Simiele

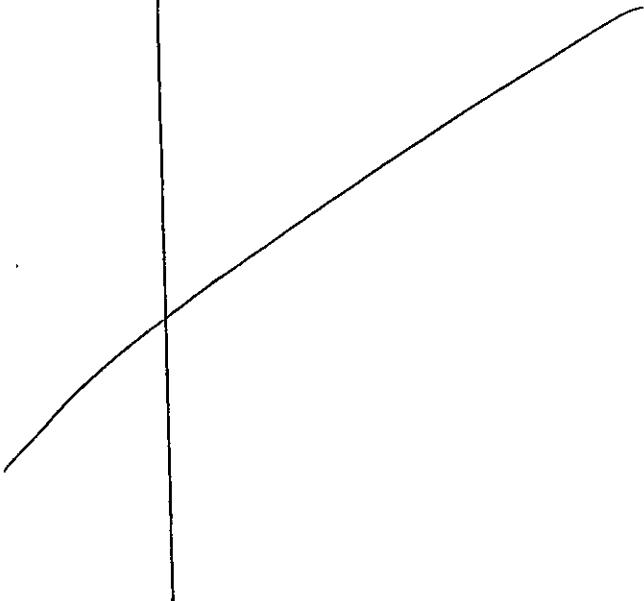
Date 10-8-90

QC check: LCS

COMMENTS: No LCS data provided with
data package.

ACTION: None

<u>sample #</u>	<u>constituent</u>	<u>value/qual</u>	<u>sample #</u>	<u>constituent</u>	<u>value/qual</u>
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RCRA LEVEL C QC

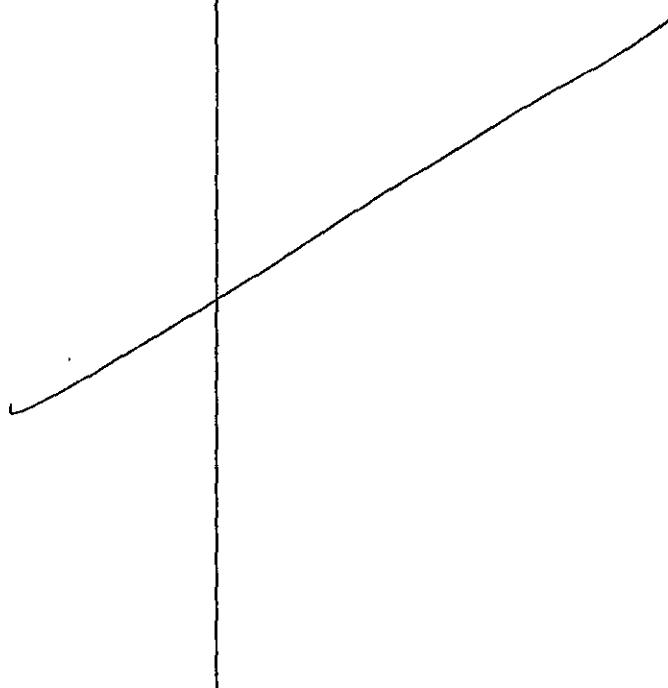
Name C.J. Simiele Date 10-8-90

QC check: Matrix Spike

COMMENTS: All 1C matrix spike analyses
within control limits.

ACTION: None

<u>sample #</u>	<u>constituent</u>	<u>value/qual</u>	<u>sample #</u>	<u>constituent</u>	<u>value/qual</u>



— of —

RCRA LEVEL C DC

Name C.J. Simiele Date 10-8-90

QC check: Duplicate Analyses

COMMENTS: One anion in duplicate analyses
out of control limits. (C1)

ACTION: Qualify associated data as per
(SSM) guidelines.

sample # constituent value/qual
F0063 C1 J

sample # constituent value/qual

RCRA LEVEL C QC

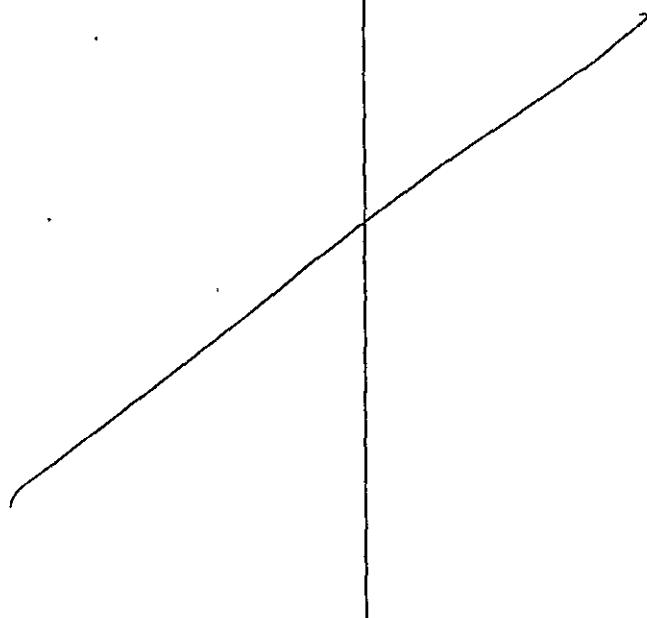
Name C.J. Simiele Date 10-8-90

QC Check: Calibration

Comments: All TOC initial and continuing
calibration within control limits.

ACTION: None

<u>sample #</u>	<u>constituent</u>	<u>value/qual</u>	<u>sample #</u>	<u>constituent</u>	<u>value/qual</u>
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RCRA LEVEL C OC

Name C.J. Simiele Date 10-8-90

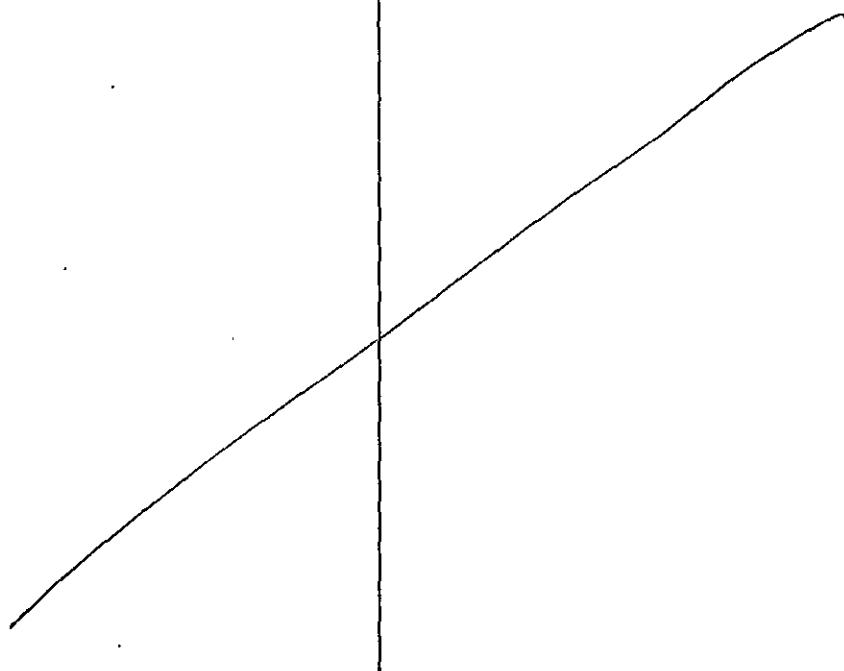
QC check: Analytical Blank

COMMENTS: TOC Preparation blank

Contaminant free

ACTION: None

<u>sample #</u>	<u>constituent</u>	<u>value/qual</u>	<u>sample #</u>	<u>constituent</u>	<u>value/qual</u>



RCRA LEVEL C QC

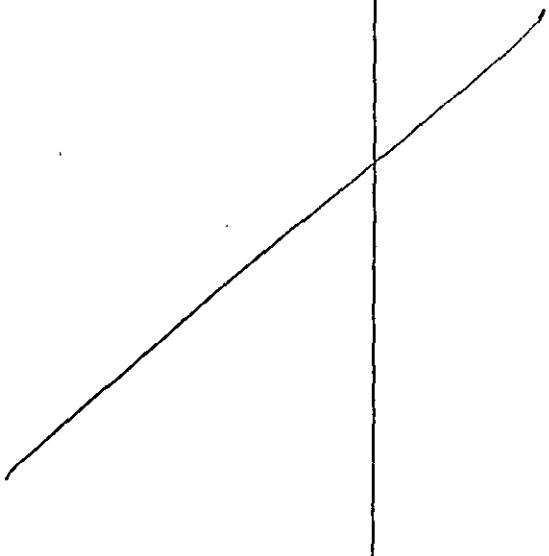
Name C.J.Simiele Date 10-8-90

QC Check: LCS

COMMENTS: No LCS data provided with data package.

ACTION: None

sample # constituent value/qual | sample # constituent value/qual



RCRA LEVEL C QC

Name C.J. Simiele

Date 10-8-90

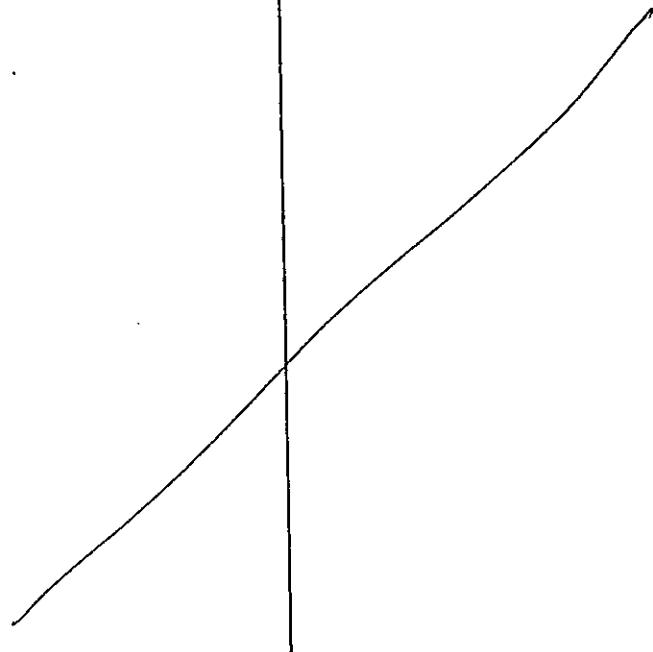
QC check: Matrix Spike

COMMENTS: All TOC matrix spike data
with in control limits,

ACTION: None

sample # constituent value/qual

sample # constituent value/qual



RCRA LEVEL C QC

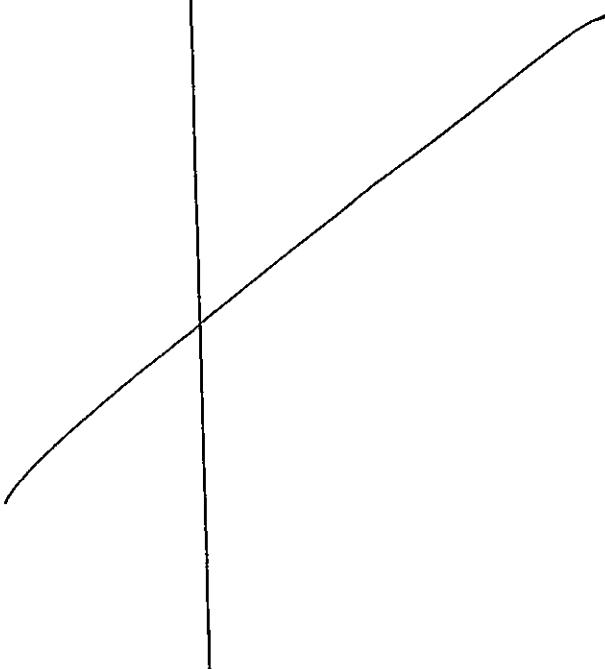
Name C.J. Simiele Date 10-8-90

QC check: Duplicate Analyses

Comments: All TOC duplicate analyses
within control limits.

Action: None

<u>sample #</u>	<u>constituent</u>	<u>value/qual</u>	<u>sample #</u>	<u>constituent</u>	<u>value/qual</u>



— of —

RCRA LEVEL C QC

Name C.J. Simiela Date 10-8-90

QC check: Calibration

COMMENTS: All ICP non-digested initial and continuing calibration within control limits.
Four constituents in digested initial and continuing calibration out of control limits.

ACTION: Qualify associated data as per OSM guidelines.

<u>sample #</u>	<u>constituent</u>	<u>value/qual</u>	<u>sample #</u>	<u>constituent</u>	<u>value/qual</u>
FO008	Cr	J			
	Co	J			
	K	UJ			
	Ta	RE J WS			

RCRA LEVEL C OC

Name C.J. Simiele Date 10-8-90

QC Check: Analytical Blank

Comments: Possible Contaminants detected in sample and associated preparation blank for: B, Cd, Ti, and Zn.

Action: Qualify associated samples as per OSM guidelines.

sample #	constituent	value/qual	sample #	constituent	value/qual
F0068	B Cd Ti Zn	U			

RCRA LEVEL C QC

Name C.J. Simiele Date 10-8-90

QC Check: LCS

COMMENTS: No LCS data provided with data package.

ACTION: None

sample # constituent value/qual | sample # constituent value/qual

sample # constituent value/qual

of

RCRA LEVEL C QC

Name C.J. Simiele

Date 10-8-90

QC check: ICS

COMMENTS: No ICS data provided with
data package.

ACTION: None

sample # constituent value/qual

sample # constituent value/qual

RCRA LEVEL C QC

Name P.J. Simola Date 10-8-90

QC Check: Matrix Spike

Comments: Nine elements in ICP matrix
spike out of control limits. (B, Ca, Cr, Mg,
K, Ag, Ta, Zn, Zr)

Action: Qualify associated data as per OSM
guidelines.

sample #	constituent	value/qual	sample #	constituent	value/qual
F0068	B	J			
	Ca	J			
	Cr	J			
	Mg	J			
	K	UJ			
	Ag	UJ			
	Ta	R			
	Zn	J			
	Zr	J			

RCRA LEVEL C QC

Name C.J. Simiele

Date 10-8-90

QC check: Duplicate Analyses

COMMENTS: 10P duplicate analysis out of $\pm 20\%$

control limits for: An(48%), Ba(49%), Be(43%),
B(73%), Co(34%), Cu(66%), Eu(38%), La(57%), Pb(1265%),
Li(54%), Mg(83%), Mo(75%), Ni(32%), Sm(35%), Se(59%),
S(26%), Ta(40%), Tb(92%), Th(95%), Sn(53%), Ti(28%), U(156%), V(58%),
Zn(63%), Zr(696%).

ACTION: Qualify all associated samples

as per OSM guidelines.

sample # constituent value/qual

sample # constituent value/qual

FOO68

An

J

Ba

Be

B

Co

Eu

Pb

Ti

Mg

Mo

Ni

Sm

Se

S

Ta

Tb

Th

U

V

Zn

Zr

— of —

RCRA LEVEL C QC

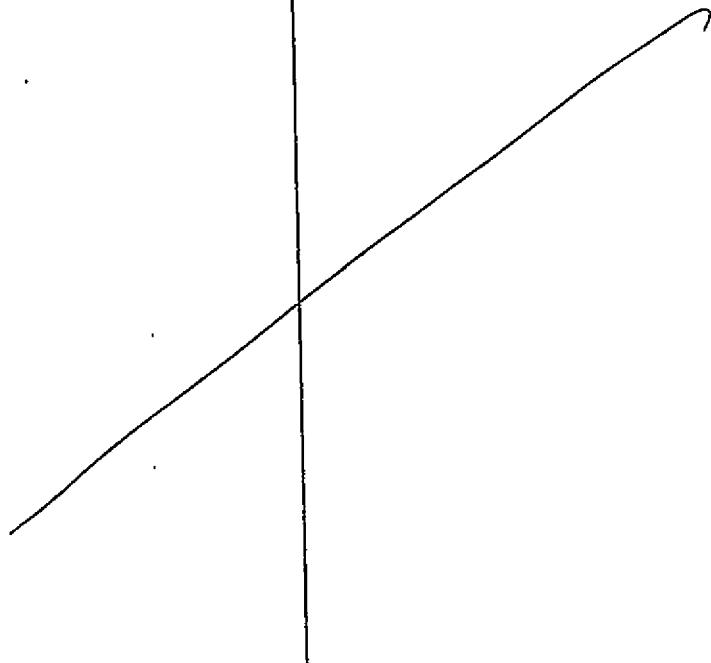
Name C.J. Simiele Date 10-5-90

QC check: Duplicate Analyses

COMMENTS: Both pH and % water
duplicate analysis within ±20%
control limits.

ACTION: None

sample # constituent value/qual | sample # constituent value/qual



— of —